
Retiree/Alumni eNewsletter

July 2009

Some Editorial Notes

BY GORDON KOBLITZ

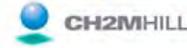
It's been another quick six months and many good things have happened! I'll keep my comments relatively short since we have a lot of retirement news, but will make a BIG PLEA: please sign up for the email version if at all possible! We have too much good news to share in just the written copy (but we understand that some of you aren't "connected" – that's okay!) plus it will help us save on postage, which keeps increasing. The eNewsletter (in color) and now the Alumni Connect program (see Karen Hancock's article) will link us as never before. Everyone will have access to the latest company news, retiree news, events taking place, communication with other retirees/alumni, be aware of project assignments that could be of interest, and the list goes on. Just use the following links to contact Vicki Starr/CVO or me to join the eNewsletter: vicki.starr@ch2m.com; gkoblitz@ch2m.com and Karen Hancock/DEN khancock@ch2m.com for the Alumni Connect information.

Be sure to check out the article about the upcoming 2009 Retreat in Sun Valley in September and sign up now – it's going to be a wonderful time for all. The Alumni History Web site is continuing to grow with many contributions and can now be accessed through the Alumni Connect Web site too. Check with GeneSuhr@comcast.net for Alumni History activities, and if you'd like to contribute by adding some of your experiences or "Reflections" as our company grew – it's a fun walk down memory lane! We also appreciate your comments/suggestions/thank you's and articles and/or updates. Thanks to our newsletter team again: Suellen Ehrmann, editor and Vicki Starr, DP, without whom this package wouldn't happen (they each contributed an interesting article this issue too). Enough for now – enjoy your Newsletter and hope you all are enjoying your summer! *Gordon*

2009 Retirees/Emeritus Retreat



2009 Retirees/Emeritus Retreat



We are excited to have the 2009 CH2M HILL Retirees/ Emeritus Retreat this year in Sun Valley, Idaho. With the company's growth through the years, this retreat is sure to prove exciting because we will have retiree representation from around the country. Program activities will include evening receptions and dinners where guests will hear the latest enterprise highlights from members of the leadership team on Monday and a program honoring Earl Reynolds and highlights of the Boise office history on Tuesday. Daytime activities will include choices of bus tour to Redfish Lake/Lodge luncheon/Fish Hatchery tour/ Stanley Lake, all with plenty of visiting time, golf, hiking, shopping, historical tours, chat room or patio for visiting with friends and colleagues, and a Thursday morning farewell breakfast with discussion on retiree "connectivity" with the firm and suggestions for the 2011 retreat. Please see the agenda below:

Monday, September 14

- Registration and welcome
- Reception and dinner with an Enterprise update from CH2M HILL Joint Council (formerly the OCEO) Representation

Tuesday, September 15

- Bus tour of historic Sun Valley and surrounding area
- Dinner and presentations:
 - New Alumni Relations Web site
 - Boise office history and a tribute to Earl Reynolds, a long time employee and founder of the Boise office

Wednesday, September 16

- Your choice of activities – from golf, to fly fishing, to a spa visit at the resort
- Dinner on your own or assistance with dinner reservations from the Meetings and Events Team

Thursday, September 17

- Breakfast and discussion for the next retreat in 2011
- Departures

To register for the 2009 CH2M HILL Retirees/Emeritus Retreat via the Internet please go to:

http://alumni.ch2mhill.com/events/event_details.asp?id=53260.

Also, please note that this event is by invitation only for CH2M HILL

Retirees and Emeritus (55+ working part time or flex) employees and spouses or partners.

For registration by mail (or if you have any questions) please contact Megan Snider/DEN megan.snider@ch2m.com at 720-286-4311 for written information and forms.

Hot Off the VO Press!

CELEBRATING WITH RALPH PETERSON ON OCTOBER 2

Ralph Peterson is retiring later this year, and to commemorate his decades of leadership and the vast influence he's had on employees around the world, there will be a celebration in Denver at the corporate headquarters on October 2. For employees not based in Denver, remote viewing options will be available, and a video of the event will be provided on the Virtual Office.

Peterson, who has had a 43-year career at CH2M HILL, stepped down as CEO at the end of 2008, and his tenure as chairman ended in May. He will turn 65 years old in October and, as he had previously announced, will retire that month. Anyone who has read his messages, seen his videos to the workforce at large, or has met him personally knows well how deeply he cares about CH2M HILL and its employees.

Please mark your calendars for October 2, and be prepared to celebrate with him no matter where you are. More information about the celebration and the video will be forthcoming.

Please use the new "Alumni Connect" web site described next by Karen Hancock for further information regarding the celebration and video.

Connecting Better than Ever With Retirees and Employees Transitioning to Retirement

FROM KAREN HANCOCK/DEN

It's exciting to share news about the launch of **Alumni Connect**, the firm's new Web site for retired alumni and Emeritus employees (employees working less than full time as they transition into retirement).

"After listening to our retirees and those transitioning to retirement, we heard loud and clear that one of the challenges they face is feeling disconnected," explained Karen Hancock, CH2M HILL's new Retiree/Alumni Relations Manager, "this site will definitely help keep them connected with the firm and each other."

The start of the new site has gone extremely well. E-mail invitations to join were sent two weeks ago to 450 retirees and 470 Emeritus

employees. Since then, the site has been visited more than 650 times and 125 members have updated their profiles to share news and photos.

On *Alumni Connect* members will find an exciting blend of:

- Firm, industry, and retiree news
- Company event/community service opportunities
- Short term assignment postings (for those who are interested)
- Links to retirement resources
- Access to the alumni history Web site, and the added benefit of
- Social networking features similar to those found on sites such as *Facebook* and *LinkedIn*.

While social networking may seem a bit daunting at first, it's a great way to share what you're up to and to learn about what's keeping other people busy. Here are just a few examples of members you could search for – **Steve Aasheim, Tim Hassett, Ray Hansen, John Filbert, and Thomas Haislip**. Their profiles give our on-line community a good sense of what they're up to.

To access member profiles and many sections on the site, you'll need a username and password. If you haven't yet received these from the alumni relations team, let us know at alumnirelations@ch2m.com.

Special thanks also to the great group of retirees and Emeritus who tested the site early on and provided feedback: **Roger Bothof, Bob Chapman, Barbara Dash, John Echternach, John Filbert, Mary Jo Jordan, Gordon Koblitz, Don Marske, Nancy Schultz, Peggy VanHemert, and Ted Way**.

If you haven't had a chance to visit the site yet, we hope you will soon so you'll see for yourself how easy and fun it is to **Get Connected!**

Visit today: www.alumni.ch2mhill.com

Another New Way to Stay Connected

Are you receiving the *Reflections* newsletter that keeps water alumni informed of CH2M HILL's water business happenings? This quarterly newsletter should interest those who desire a more detailed description of the firm's water projects. If you would like to receive *Reflections*, please contact Ina Cunningham by calling (720) 286-2435, by email Ina.Cunningham@ch2m.com or by mail to CH2M HILL, Attn: Ina Cunningham, 9189 S. Jamaica St., Englewood, CO 80112-5946.

Ralph Peterson Receives Honor for Service to Society

On June 13, CH2M HILL Chairman Emeritus Ralph Peterson received the 2009 Oregon State University Distinguished Service Award at the school's commencement ceremony for his contributions to society—locally and globally. Peterson joins CH2M HILL co-founders Holly Cornell, Jim Howland, Burke Hayes, and Fred Merryfield, who were honored with the award in 1986. He graduated from OSU in 1969 with a bachelor's degree in civil engineering.

"The list of accolades for Ralph's contributions is long and impressive," wrote Colorado Governor Bill Ritter in a letter to OSU's Faculty and Awards committee. "However, Ralph's positive impact on OSU, Oregon, Colorado, the nation, and the world is not best measured by the awards he has received, but by the example he has set as a role model and mentor for thousands of his colleagues throughout his career."

Mike Kennedy Talks About Why CH2M HILL Pursued the Job, Why He Took It On and the Intimidating History of the Canal

BY C.J. SCHEXNAYDER (COURTESY ENR-McGRAW HILL)



Mike Kennedy arrived in Panama earlier this year to head CH2M HILL's management of the \$5.25 billion Panama Canal Third Lane Expansion. The CH2M HILL Executive Vice president is a 38-year veteran of the Denver, Col.-based firm. He previously served as the president of the company's Transportation Business Group, handling management services for several major jobs such as London's \$22 billion Crossrail Programme and Vancouver's \$4.5 billion Gateway Program. CH2M HILL is working in close association with the Panama Canal Authority (ACP) to oversee the expansion effort and, particularly, the design/build locks contract due to be awarded this summer. Kennedy sat down with ENR in his new office near the Miraflores Locks in Panama City to discuss the historic project and the challenges it presents over the next five years.

Why did CH2M HILL choose to pursue this job?

We had, as a transportation business, a desire to build a brand as the group doing the largest infrastructure projects in the world. In 2005 we looked at what were the biggest programs in the world and we picked half a dozen we wanted to target and the Panama Canal

expansion was one of them. The advantage CH2M HILL has when we want to do something new, is almost anywhere in the world we have already done something. Turned out we had done work down here and we had some relationships here. In addition, we had a couple of individuals in our organization who not only were Panamanian, but loved the country and wanted to contribute.

Then we started to educate ourselves about the project and the program. What's being done? Who's doing what? What are the dimensions of the program itself? We started to get involved and we looked for good advisors.

From the company perspective we looked at this job as one of those benchmark reputation-setting programs that are so universally recognized that they would carry your reputation for decades if done well. This is... the Panama Canal; you don't really have to say much more than that.

What about this job appealed to you personally?

I'll be 60 in July and if I think back over my career, it started off in projects and I sort of worked my way up until I became a corporate president and running a very large group. I really enjoyed that but to a certain point I missed the satisfaction of getting something done. It's not that you don't do something when you are an executive in a corporate role but it's not the same as having a tangible focus on having something becoming finished.

That's kind of how I'm wired, that's kind of what engineering is all about. And the Third Lane Expansion is the most visible programs in the world. It is a "program" so it has a beginning, middle and end, you can see the progress. And it's in a country that is so focused and dependent on the success of this that the stakes are really high. To me it's an irresistible challenge and it crystallized what I want to do.

How intimidating is the historical importance of the Panama Canal?

At a personal level it's sort of like remodeling the White House. You are touching something that is, in some respects, almost sacred. You've got a situation where you really have one of the engineering marvels of the world and you are privileged enough to be a part of it. The historical dimensions of this, the legacy that goes back more than 100 years certainly isn't lost on anybody working here. It isn't something we talk about every day but you can't escape it. You just can't.

Are there any lessons from the original construction that can be used in the current effort?

We talk about sustainability; well these locks have been operating for ninety four years with very predictable reliable operation because they are simple. And I don't mean that to be demeaning to the original builders but they actually figured out how to make this very reliable and very maintainable. As an engineer you strive to make things durable so surely there some lessons there. There is no frills, no fanciness here; it just works. Every day, over and over again, time after time.

There is also a logistical element. If you go back and look at the original story of how the canal was built you see how it was about how the right people were in the right place. From Goethals all the way through his organization and even before that... you had the right people at the right time doing the right thing. I think you are starting to see some of that emerge here.

Although you are just starting out on this effort, what is the most important thing you've learned so far?

We've gained an appreciation of how important and how critical this is for the country and how much pride the people have in ACP, the canal and this project. Almost everywhere you go here, if people find out you are working on the project, the first thing they say is "what can I do to help?" It isn't really a surprise but the realization and actually seeing it in action is pretty powerful. This is truly the country's project.

We are trying to be respectful of the fact this is their program and being clear about what it is that we can contribute and how we can strengthen and enhance what they know. The folks at the ACP are brilliant and have such depth in terms of knowledge of this subject so we are trying to be clear about where we can add value. How can we do that efficiently in ways that will help them grow as an organization. I think about that every day.



Rudd and Sylvia



“Gladys and her Pips”



Carol is shown holding a gift from CVO friends at her retirement party. Painted by Susan Lewis/HNL and former CVO co-worker.

Rudd Little Ready to Enjoy Life Beyond CH2M HILL

CONTRIBUTED BY MARIE HAEZEBROUCK/DEN

After 37 years of service, Rudd Little, CH2M HILL’s long-time Director of Benefits, decided it’s time to enjoy life a bit, so he moved to retired flex status effective May 1. The Denver HR team helped him celebrate his retirement with two events.

The first was a dinner on May 12, where Rudd was honored and roasted by his senior HR colleagues and special guests. One of the highlights (or lowlights depending on your musical taste) was entertainment by Gladys Knight and the PIPs (performance improvement plans, AKA Faye Tate, Bob Allen, Bob Gonzales, Carol Barbary, Sheila Taylor, and Catherine Russell). Dirk Stauthamer, Katherine Johnson, Marlys Roehm, and Troy Evans served as impromptu *American Idol*-type judges. It was hard to say whether Gladys and her PIPs or the judges were more entertaining!

The following morning, the rest of the Denver-based HR team had a farewell breakfast for Rudd. The PIPs reprised their performance, and staff members shared funny stories about working with him.

To say that we’ll miss Rudd does not begin to describe how much we have enjoyed working with him, appreciated his input, laughed at his jokes, and felt like we had an advocate, friend, and advisor in him no matter what the situation. Rudd is one of a kind, and beyond the encyclopedic benefits knowledge he possesses, we will all remember his humor, his kindness, his intelligence, and his friendship. Thank you, Rudd.

CVO Publications Leadership Changes as Carol Harms Retires

Carol Harms retired on April 24. Carol, who celebrated her 31st service anniversary in March, has been Corvallis Publications operations lead for nearly half of her career at CH2M HILL. In addition to being instrumental in the successful delivery of hundreds of proposals and technical reports over the years, she is a highly capable, detail-oriented, responsive, and resourceful proposal manager and editor...and a wonderful co-worker. Fortunately, Carol transitioned to flex so she didn’t leave us for good! (*Contributed by Marie Gettel-Gilmartin/PDX*)

We had a wonderful lunch for her with the PDX Pubs group then another lunch with the CVO Pubs group and then CVO had an office-wide farewell celebration for her – it was a busy week! (*Contributed by Vicki Starr/CVO*)

Carol's commitment to accuracy, clarity, and collaboration has been key to the success of many proposal efforts and project deliverables. Think about the breadth of her acquired knowledge as an editor and publications manager. She has become truly literate across the range of the company's disciplines. And I don't ever remember Carol flinching at having to learn another new computer application, which can be a dreaded challenge for many long-time, "older" employees such as she and I. Maybe it came easy to her, maybe her husband—an H-P engineer—tutored her, or maybe she just bore down and tackled it. I suspect the latter, because her ability to focus on a task and get it done with excellence under time pressure is renowned. *(Contributed by Larry Weymouth/CVO)*

Graphic Designer Aimee Hobson has stepped up to take Carol's place as CVO Publications Lead. We know she'll do a great job leading the CVO Publications group in providing the same great, high-quality service to their clients as Carol did over the years.

Editor's Note: A PowerPoint presentation and more pictures can be viewed on the Alumni Connect Web site: www.alumni.ch2mhill.com.

Bob Fuller's Retirement Celebrated in Portland

contributed by Bob's son Brady Fuller/BND (BFULLER1@CH2M.COM)

It was a wonderful event. Sue McKenzie/PDX and Brad Phelps/PDX arranged a great venue and catered buffet dinner. A number of CH2M HILL and alumni, contractors, and suppliers attended who have worked with Dad over the years. Brad arranged for several of us to provide recollections of his career with some anecdotes (several of which were a bit dubious including events that Dad wasn't sure were attributed correctly to him) and some photos of the early days were good for some laughs.

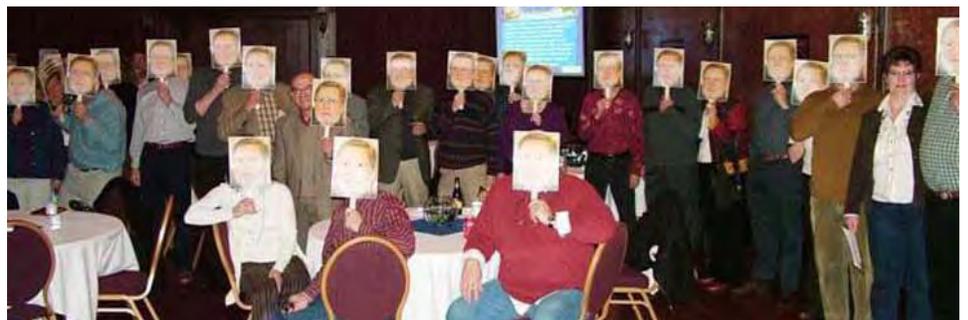
Dad was especially pleased to see Lew Angelo, one of his first clients from Camas, Washington. Lew had retired 30 years ago and is 90+ years old.



Bob enjoying his celebration



Brad Phelps presents chronicle of Bob's career at CH2M HILL (view presentation at Alumni Connect Web site: www.alumni.ch2mhill.com.)



It's been fun to have worked with some of the same friends and colleagues that Dad has over the years. Jim Howland said in his Little Yellow Book that the firm is big enough to employ more than one member of the same family, but to not let one work for the other. We

made sure not to do that, but this industry is actually pretty small, and I've been the beneficiary of his good name as I've run into folks who know and have worked with Dad in Oregon and Washington over his career. One of the fun highlights was greeting Dad with everyone holding his photoface in front (pictured) as he entered the room for the toast/roast. A truly fun evening to honor one of the most dedicated and client-oriented engineers in the Portland office!

Editor's Note: A PowerPoint presentation and more pictures can be viewed on the Alumni Connect Web site: www.alumni.ch2mhill.com.

Money-Man Nelson Retires After 38 Years

L. L. (Vern) Nelson fully retired as of December 31, 2008, after 18 years in CVO and 20 years in the Denver headquarters office. He joined the firm in 1970 after graduating from the University of Oregon (yes, a Duck among a bunch of OSU Beavers) as an administrative manager with Bob Adams, later worked for Holly Cornell and ultimately Mike Fisher in finance and corporate controllership activities based in CVO. He was named INC Corporate Controller in 1978. During his time in CVO, Vern managed a variety of financial functions including accounting operations, proposal pricing support, business (profit) planning, capital budgeting, revenue/workload forecasting and myriad other administrative roles.

In 1988, Vern was named V.P. and Controller for the LTD holding company and relocated to Denver. In this position he managed holding company accounting operations including reporting consolidations, regulatory filings and annual fiscal audit oversight and auditor interfaces working ultimately for Sam Iapalucci (Executive V.P. and CFO). He also provided senior staff support for the Board's quarterly Audit and Finance Committee meetings in conjunction with the committee chair and the CFO, and researched, wrote, and/or presented a variety of reports on fiscal projects and issues for the committee. In 2000, Vern became V.P. Investor Relations and for the next 7 years traveled throughout the network of offices making presentations and fielding questions on the Employee Ownership Program. Vern's passion, energy, and belief in the power of the program were evident in every presentation he made. Vern was also active in several professional and community service organizations in CVO and DEN.

Vern is looking forward to full retirement and expanding his volunteer work with the Mile High United Way in Denver providing campaign fundraising support and pursuing his love of golf, fly fishing, travel and spending time with his kids and grandkids in Oregon. (Vern's and Carol Anne's son Jeff is a civil engineer with the City of Roseburg). Vern and Carol Anne live in Castle Pines Village south of Denver. His email is vernnelson@q.com.



Vern and CarolAnne

Tom Gibbs Is Diamond Award Honoree

Retiree Tom Gibbs received a 2009 Diamond Award for Distinguished Achievement from the University of Washington College of Engineering on May 8th presented by Dean Matt O'Donnell at the Don James Center in Husky Stadium. The award recognizes the outstanding achievements, ingenuity and entrepreneurship of all engineers. The following is taken from the University of Washington announcement. Congratulations Tom!

Using his skills in engineering, management and team building, Tom Gibbs created innovative and lasting environmental legacies. His work for a sustainable environment nationally and in two major cities was of historic importance to the clean water movement. He led construction of Metro's acclaimed clean-up of Lake Washington and Puget Sound, earning commendation from the White House in 1971. Mr. Gibbs was program manager for Milwaukee's ambitious and very successful Water Pollution Abatement Program. While in Milwaukee, he sparked the transformation of the downtown riverfront from a polluted eyesore to a dynamic urban destination. He oversaw the integration of four declining transit systems in the Seattle area into the award-winning Metro Transit program. In 1969, Mr. Gibbs created the National Association of Clean Water Agencies, which is still a highly respected contributor to national environmental issues. He played a significant role in the development of the original Clean Water Act in 1972. He earned national awards from ASCE and American Public Works Association (APWA) for the development of innovative approaches to environmental challenges while at Metro. Mr. Gibbs continued his career at CH2M HILL as executive vice president and director of water practice with responsibility for all of the firm's domestic water engineering projects.

As a community service advocate, during his career and following retirement in 1997, Mr. Gibbs' leadership has touched many organizations, including the Seattle-King County Economic Development Council, the Greater Seattle Chamber of Commerce, the Mountains to Sound Greenway Trust, and the Board of Coastal Environmental Systems. He served on the initial board of the Washington State Major League Baseball Stadium Public Facilities District and was instrumental in the design and construction of a complex engineering challenge – SAFECO Field. He has been recognized as Engineer of the Year by both the Washington Society of Professional Engineers and the Consulting Engineers Council of Washington.

Marske and Son, SCO Staff and OCSD Give House a Facelift

BY DON MARSKE (DONMARSKE@YAHOO.COM)



Esperanza's house before



Esperanza's house after



Paint Your Heart Out crew is all smiles after a job well done

About 10 years ago, the City of Anaheim, CA, received one of Jim Howland's many Municipal Excellence Awards from the National League of Cities for their Paint Your Heart Out (PYHO) program – a non-profit corporation that restores homes owned by low income seniors and the disabled. On the day Jim was to present the award to PYHO at the City Council meeting, his flight was cancelled due to a storm in the Portland area. Jim called the Santa Ana office for help with the presentation. It was this presentation that introduced me to PYHO, and Jim's recognition of it, that inspired me to pull a CH2M HILL team together to start painting houses for PYHO. It is now 10 years later and our Santa Ana office, in partnership with the Orange County Sanitation District, is still painting houses along with 60 other teams that assemble over 1,500 volunteers to prep the house on one Saturday and paint on another Saturday.

PYHO was founded about 20 years ago. Last year we painted 59 homes in the communities of Anaheim, Brea, Orange and Santa Ana. In addition to restoring the pride, dignity and safety of the 59 homeowners, PYHO delivered \$1.75 in community improvements for every gift of \$1 – a total of \$515,000 for the communities served. We will paint our 900th home this year.

Today I serve as the President and Chairman of the Board for PYHO. Like most non-profits, it has been another challenging year. Our Board is frantically looking for new sources of income and new methods of fundraising as donations have significantly dropped off to the point where our survival is in jeopardy. So ... if I may impose on your compassion for low income seniors [aka CH2M HILL retirees ☺]... we are accepting donations, however small, to:

Paint Your Heart Out, Inc.
c/o Debbie Schulz, Executive Director
1260 N. Hancock
Suite 103
Anaheim, California 92807

For more information about PYHO, you can visit us at www.pyho.org. Thank you in advance for your support.

New Retirees/Alumni (12/26/08 – 7/8/09)

Carla Bare – 12/26/2008

Dale Green – 1/23/2009

Dennis Newman – 1/2/2009

Bennie Bozman III – 2/15/2009

Patty Sather – 1/2/2009

Patrick Klampe – 4/10/2009

John Gaston – 1/10/2009

John Lee Jr. – 5/2/2009

Robert Blanz – 1/22/2009

Carol Harms – 5/16/2009

Note: If an employee has “retired” but not started their pension, we may not know about them. The employees listed above all retired under the pension plan.

Deceased Retirees

Ralph Martin – 2/9/2009

Timothy White – 4/26/2009

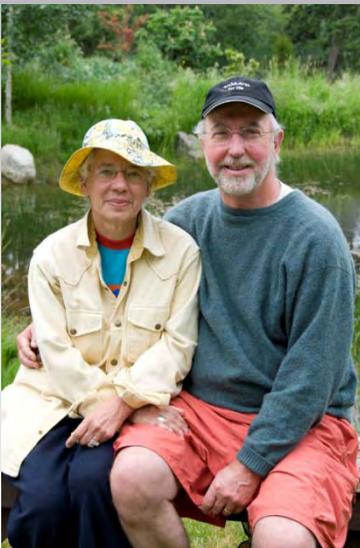
Richard Humphrey – 2/23/2009

James Braman Jr. – 5/9/2009

Where In The World Are They?

JIM GOETZ GOES TO SAN JUAN ISLAND

JIMPAMGOETZ@COMCAST.NET



Pam and Jim

After spending 2 years in flex status and finding no time for real work, I decided to retire full time effective January 2009. My 38 years with CH2M in the wastewater group were challenging, rewarding, and mostly fun. The projects and people were great and the experience was wonderful, and I am now looking forward to new adventures in retirement.

I feel fortunate in having had the opportunity to work on great water quality projects, almost entirely in my locale, the Northwest.

I was also fortunate to work with many great people and there are a few who I want to thank specifically for their mentoring and support. Phil Hall and I worked together at the Navy in Seattle in 1966; he of course, left the Navy to join this consulting firm with the odd name and soon called me to tell me what a great firm Cornell Howland Hayes and Merryfield was – the “major leagues,” he said. I soon ended up in the Army and was not able to join, but contacted them immediately on my return from Viet Nam. Lyle Hassebroek took the chance to hire me in 1970, in the water/wastewater group; a very risky move to hire this green engineer who hardly knew the difference between influent and effluent! Thanks Lyle. Gary Graham taught me wastewater treatment and design. I’ll always remember the many long days and sometimes evenings, working with Gary on one of my first designs Bellingham Post Point Secondary.

Thanks as well to John Filbert for his support during the discipline years on projects in Alaska and especially on the Tri-City Service District project for Clackamas, Oregon – my first major project as chief designer and project manager. Lastly, I want to thank Gene Suhr and Dave Evans. Both were instrumental in winning and successfully executing the West Point project for Seattle Metro – a mega project, at least at that time in the firm’s history, and one that won numerous awards and provided great growth opportunity for the firm. Working for the major wastewater provider in my hometown, Seattle, had always been my goal. Thanks to all of you for helping make my career enjoyable and successful.

We look forward to completing our new house, shop, and guest cottage on San Juan Island – the island in NW Washington where we have had our tug boat moored for the last 20 years. Having lived on a houseboat on the water for the last 27 years, it will be nice to be in a house that is level and one where the doors stay in position when opened! Visitors are more than welcome – to either the houseboat or the island house; send us an e-mail at jimpangoetz@comcast.net.

MY JOURNEY TO CHINA

CONTRIBUTED BY VICKI STARR/CVO (VICKI.STARR@CH2M.COM)

Some of you might know my name but not much about me. I’m not a retiree or an alumna; I’m the document publishing specialist who pulls together your newsletters and eUpdates. I’ve worked part-time for the Corvallis office for 15 years. Two years ago my husband, Gary, took a job in Beaverton (near Portland) and now I telework for CVO from our home.

This past year Gary had the opportunity to work in Shanghai, China for 5 months. I was fortunate enough to join him there twice, for two weeks at a time. Shanghai was wonderful. Such a huge city with millions of people, so different than life in Oregon.

One thing that stands out for me is downtown Shanghai, the buildings and the architecture. It’s like a race to see who can design and build the most unusual or tallest skyscraper (see photo). They are really wonderful to look at.

We were also there over Chinese New Year and that was a great experience. We were in an apartment 33 stories up facing downtown Shanghai and the fireworks were beyond amazing. We ventured out New Year’s Day to a pedestrian area and literally got squished in the crowd (see photo). I’ve never experienced that type of crowd. Gary had a death-grip on my arm and still it was a struggle to keep together.



Vicki enjoying Shanghai (a view of the Bund behind her)



Downtown Shanghai Skyline



Chinese New Year in Shanghai: Hold tight!

The culture is very different but the people were friendly and the city easy to explore. An inexpensive and thrilling (if not death-defying) taxi ride will get you anywhere you wish to go. For the short time we were there we really enjoyed ourselves.

ROSS DEWITT

CVO 1976-87; CNV 1987-93 (RADEWITT@COX.NET)

It's surprising to me how many names and faces from the newsletter I recognize after so many years. CH2M HILL divested their interest in company-owned aircraft in the early '90s and I went the way of the albatross...only to land at the University of Florida running the athletic association's aviation department.

It's been an enjoyable 13+ years now at UF and the timing for sports-related interests couldn't have been better. During my tenure here the Gators have walked away with quite a number of NCAA championship trophies and it has been fascinating to be involved with their success. While the names Urban Meyer, Steve Spurrier, Billy Donovan and Ron Zook don't have quite the international recognition as Holly Cornell, Jim Howland, Burke Hayes, et al, it's been a lot of fun!

I still miss those great years with CH2M HILL and I'm glad to see the fabulous growth and success enjoyed by the company. It's particularly interesting to see those young engineers I used to cart all over the NW and SE begin to take over managerial positions with the firm. Good luck to you all in the future.

JIM HAWKEY FETED IN GNV

CONTRIBUTED BY LETICIA SOLAUN/SAN (LSOLAUN@CH2M.COM)

After an illustrious career spanning 35 years, Jim Hawkey retired from CH2M HILL. At his retirement party in March, Jim was visibly touched by the large turnout of friends, family, and colleagues, many of whom traveled long distances to pay tribute to a man who is widely regarded as a legend not only within the company but throughout the engineering community.



L to R: Jim & Sharon Hawkey, Mike & Marge Myhnier, and John Filbert

Members of the Water Business Group Leadership Team saluted Jim for his "outstanding professional service to our company and our clients." Several people thanked Jim for being an outstanding mentor and an inspiring leader. All who spoke acknowledged him as a tremendous asset to the company. Attendees gave Jim the first of many standing ovations when Bob Bailey stated, "Jim is known throughout our industry as a man of integrity and honor. In his 35 years with CH, Jim has never lost a single client."

Younger colleagues including Dolfo Valladeres, David Ashman, Yvonne Picard, and Doug Jenkins spoke of their admiration for Jim both

personally and professionally and expressed their thanks for his continued guidance and support. Jim stated that “with fine folks like you, Katus Watson, Leticia Solaun, Jennifer Baldwin and countless others I know that the future of our company is in good hands.”

Jim said, “Many of you have attended one of ‘Preacher Jim’s Revivals’ and you have heard me speak time and time again about the importance of doing quality work. Please, do good work always. Have some fun, but set a higher standard for yourself and for our firm. I promise you that if you work hard and do quality work you will always make money for yourselves and for the company.”

As the night wound down Jim took the microphone one last time. He asked his wife Sharon to join him on the stage and gifted her with coral roses while thanking her for her continued friendship, love, and support. He paid tribute to Dr. Ignacio Garcia-Bengochea, Dr. Manuel Villaret, Manuel Carreño, Gene Suhr, John Filbert and Lyle Hassebroek, saying “I regard these men not only as mentors, but as individuals whose friendship, support and guidance have been invaluable to me over the years.”

In speaking about his recent experience with prostate cancer, Jim said, “If you all will indulge me there is one final thought I would like to share with you before we finish here tonight. I can’t even begin to express what seeing you all here tonight in person and listening to your heartfelt words has meant to me. It has been an honor and a pleasure working with and getting to know each and every one of you and in many cases your spouses and families as well. Please, please urge any man, be it a spouse, brother, co-worker or friend you know over the age of 50 or earlier if there is a family history to insist upon a yearly prostate exam with PSA testing. Early detection is the key and can absolutely save lives. I care about each and every one of you and urge you to be proactive in seeking all your healthcare answers. Thank you for an unforgettable evening and God bless you all.”

Although he has officially retired from CH2M HILL, Jim consults on programs and projects while continuing to travel the world with Sharon.

Editor’s Note: A PowerPoint presentation and more pictures can be viewed on the Alumni Connect Web site: www.alumni.ch2mhill.com.

RETIREMENT WITH TIM HASSETT

I’m on 40 acres and have a direct view of Pikes Peak from my living room window. I have four horses now. A baby was born last May and WOW, is she growing fast. I’m learning, by listening to others (may come as a surprise to some) and reading some, to train the baby and another mare that I purchased (she is going on 4 now). This mare is a story unto itself. My dear friend, who I purchased the first horse from

and was teaching me about taking care of horses, died on Lake Powell back in September 2007. We had become close in the short time I knew him. Well, lots of folks were worried that his herd (some 30 horses) would be put up for auction (which normally means sent to a meat factory in Mexico or Canada) so I purchased this un-broken mare. My friend had just finished AI (artificial insemination) on the mare I already had (the first horse) and so she was pregnant with the baby. Anyway, now I have four and it is a blast. Makes me get up and do something and they (the horses) are amazing teachers. I think they teach us more than we teach them.

On scuba and skiing I fulfilled a life-long fantasy vacation (before retirement) when I went to New Zealand to snow ski and then a week later flew to Australia and dove the Barrier Reef for a week. Spent some time in Sydney and came home. WOW, what an awesome trip. I really don't know if I'll scuba any more. I did, at one time (when living in Florida), do a considerable amount. I think I may just stick to snow skiing once a year with Henke, Kenas and Biglen.

The volunteer work has become one of the highlights of my week. I'm now going 2 days a week. It is a program for autistic children (and others with similar impairments) and has been proven to increase their quality of life. There is something therapeutic about the movement of a horse that does this. It is amazing to see the changes. In addition, the program works with injured veterans (many from the Iraq conflict). Some are completely wheelchair bound BUT they still ride and I see improvement in their confidence and upper body strength. It really is amazing what these animals can do for us.

Things are just awesome as long as I get out of my own way and allow life to happen the way it is supposed to.

Editor's Note: More pictures and Tim's retirement presentation are also available at Alumni Connect Web site www.alumni.ch2mhill.com.

JIM BLACK - (JBLACK@CH2M.COM)

I started work in the Seattle office as an electrical and control system engineer in 1974. Over the years I worked on a number of projects both domestic and abroad and helped my wife Kathy raise two children. According to Kathy, I spent much of my time on the road.

My last major project was as project manager for the information and control (I&C) system design and implementation for Changi Water Reclamation Plant in Singapore, including applications software and systems integration. This design and implementation was one of the largest control systems in a water and wastewater facility in the world. I spent most of 6 years in Singapore completing this project. After completing it in 2007, I went to part time. I have been working on the



Kathy and Jim



Jim and his "catch"



Suellen and Francis Dzah, Head, Agricultural Statistics Section of Ghana Statistical Service paid a courtesy call to FAO



Daria Wightman and Gus

Honolulu I&C project to date where he will soon move to retire completely.

After living abroad we are enjoying time with three grandchildren with a fourth on the way and keeping busy moving between homes in Redmond and Whidbey Island, Washington, and a snowbird place in Goodyear, Arizona. On Whidbey Island, I keep busy maintaining a beach house built by the family. We borrowed it from Mother Nature and she is sending us messages that she wants it back. I also spend time trying to catch a fish or two, chasing Dungeness crabs and watching sunsets with a glass of wine or two.

In Arizona we keep busy hiking, cycling and trying not to break windows on the golf course. During the time in Asia, we had the opportunity to visit a number of countries. We are now trying to see a bit of the rest of the world. After a career of facing new and interesting technical challenges on a daily basis, I'm still not sure what I am going to do when I grow up.

SUELLEN EHRMANN - (SEHRMANN@CH2M.COM)

Thanks to a TDY in Alaska years ago, I brag that I've been to all 50 states. This year, CH2M HILL added two African nations to my travel portfolio. In mid-March, I went to Accra, Ghana and Dares Salaam, Tanzania to meet with representatives of the Food and Agriculture Organization (FAO) of the U.N. World Health Organization and in-country statisticians. Our objective was to set up a strategy to communicate the FAO's CountrySTAT initiative to create a food, livestock, and agricultural database among 17 Sub-Saharan nations. I was gone 9 days, we delivered the requested reports, and our client was satisfied. Life is ~~good~~ great.

GUS PANTAZI'S BIRTHDAY CELEBRATION

CONTRIBUTED BY GORDON MERSETH, DARIA WIGHTMAN AND GUS HIMSELF (GUS@WA-NET.COM)

The Portland office Godfather, local company historian, bon vivant, and friend to all, Gus Pantazi celebrated his 89th birthday in the upstairs party room at the Alexis Restaurant on April 17th with a group of close friends and one belly dancer whose mission was to make sure his pulse rate was where it should be. It was!

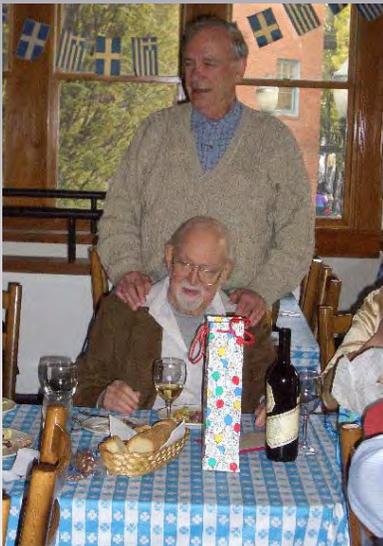
Gus, who retired in 1986, still maintains close relationships with many retired and current employees of the firm and likes to use his birthday celebration season as the primary reason for getting us all together for a periodic renewal of old friendships. Although his official birthday is some time in February, years ago Gus decided that his birthday celebration should actually start on January 1 of each year and end on March 31 to accommodate out-of-town visitors, so we celebrate it



Nofal extolling Gus's feats



Les and Mynra Wierson (left) and Gordon and Donna Merseth (right) in the foreground



Les Wierson and Gus



Gus and belly dancer

during the spring, and in some years, several times during that period! Daria Wightman (pictured with Gus) has always served as the “architect” who structured the “official” event and made sure that all necessary arrangements had been made—to her satisfaction!

Testimonials from peers, primarily those with whom Gus served in PDX, Egypt, and Saudi Arabia, provided first-hand confirmation of stories we suspected were true but couldn’t prove. At his tactful, diplomatic best, Gus neither admitted nor denied anything.

Daria once again managed to pull off an outstanding celebration. Photos offer proof of the Godfather’s well-being and that if nothing else, a long career with CH2M HILL leads to a well-deserved, enjoyable retirement.

Attendees were Gordon and Donna Merseth, Bob and Susie Fuller, Paula Ryan, Shelley Brown, Ann Shankland, Suzanna Pai (who was constantly at his side to keep Gus on his feet), Les and Mynra Wierson, Brad and Dawn Phelps, Luc Normandin, Nofal Kasrawi, Daria Wightman, Vicki Nissen and Tom Stringfield, and a stranger or two who came by just to see if Gus was for real!

One of the highlights of the evening was the show presented by a belly dancer (pictured). The envy of all women over 25 and admired by men of any age over 18, the dancer mingled with the customers during her routine, bringing forth cheers and applause throughout the dining area. Part of her routine was to single out customers to participate in her dance. Gus was fortunate (?) enough to be selected for a short session and despite his ailments, didn’t disappoint his fan club! The pictures are evidence that it was a most enjoyable affair!



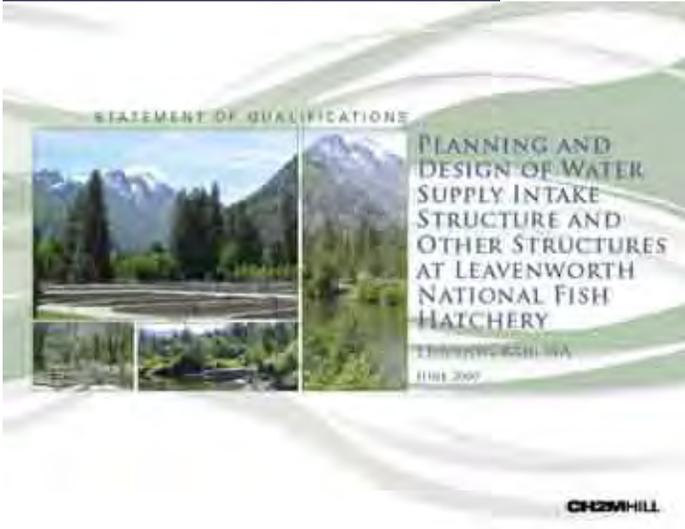
Bob Fuller and Gus



Gus, Les, and Nofal

Projects

Major ARRA Funded “Moving Big Water” Win WINNING STRATEGY HATCHES AT LEAVENWORTH



CH2M HILL has been selected for one of the largest stimulus-funded design projects to be implemented by the U.S. Bureau of Reclamation. The project is to design a 42 cfs (~28 mgd) water supply system - including a river intake, pump station, fish screen, and pipeline - for the Leavenworth National Fish Hatchery Complex. Leavenworth is one of the largest Chinook hatcheries in the Columbia River basin and is located in North-central Washington State.

The winning strategy successfully combined our world-class resume for large river intake designs, our fisheries engineering technology capabilities, and a full service Boise-based design team. Selection was based on a brief statement of qualifications.

A recent O&M evaluation at Leavenworth suggested the existing water supply system is at risk of imminent failure. Inability to operate the hatchery would have severe consequences for production of ESA-listed salmon brood stock, meeting Reclamation’s Grand Coulee Dam mitigation requirements, and satisfying the 2008 Federal Columbia River Power System Biological Opinion. American Reinvestment and Recovery Act (ARRA) funding for the water supply system and appurtenant structures is \$18.1M.

Hanford’s Fast Flux Test Facility Has Gone Quiet

FFTF SHUTDOWN WORK COMPLETED

WEDNESDAY, JUNE 03, 2009 | TRI-CITY HERALD

Work was completed this week to shut down the research reactor, which FFTF supporters say is the Department of Energy’s largest and most modern reactor.

The 110 FFTF workers, many of whom had worked there since it began operating in 1982, gradually were dispersed to other Hanford projects over the last year as projects required to shut down the reactor have been completed.

The research reactor has not operated since 1992, but work has been under way to deactivate it to a state that will require the minimum of surveillance and maintenance short of tearing it down.

That will allow money being spent at FFTF to be used for more pressing environmental cleanup work at Hanford, said Bob Wilkinson of CH2M HILL Plateau Remediation Co. He compared the completed work at FFTF to draining the oil from a car and putting it up on blocks.

The decision on whether to dismantle the 400-megawatt reactor still must be made.

An environmental study that is required if DOE decides to tear down the reactor could be completed this month. DOE's options for the reactor will be considered, along with other issues, in the Tank Closure and Waste Management Environmental Impact Statement.

The reactor had been maintained on standby to allow it to be restarted efficiently until both Democratic and Republican administrations concluded that it had no financially viable use. Options ranging from production of isotopes for medicine to production of tritium for weapons have been considered over the last decade.

The budget for the reactor, which was about \$36 million annually when it was on standby, would drop to a proposed \$7.6 million for next year. Periodic checks of the reactor still must be done, with some systems inspected every few months and others less frequently.

Work began under Fluor Hanford to drain liquid sodium from the reactor in 2003. Sodium was used to cool the reactor when it produced a variety of medical and industrial isotopes and provided research and testing of components and systems for advanced nuclear power systems.

The last of the fuel remaining at the reactor was shipped to Idaho National Laboratory for processing a year ago. Since then work has been under way, most recently by new contractor CH2M HILL Plateau Remediation Co., to continue to deactivate equipment and remove hazardous and other materials from the reactor.

That included removing 114,000 gallons of antifreeze from piping and emptying PCBs from transformers, said Bo Wier, CH2M HILL's FFTF manager, who now is moving on to manage other CH2M HILL projects. Refrigerants, oils and some residual sodium that had puddled in low areas of the piping system also were removed.

Workers collected 60 tons of paper from the FFTF complex to recycle. That was in addition to 400 to 500 boxes of papers that were saved as technically or historically valuable.

CH2M HILL also has reduced the pressure for the argon system after argon was added to pipes that once held sodium.

Power has been shut off to parts of the complex, including 14 support buildings. However, necessary systems remain, such as a fire detection

system. Sodium also continues to be stored there until it can be used at the vitrification plant once it begins treating radioactive waste left from weapons production at Hanford. DOE had a legal deadline under the Tri-Party Agreement to submit a plan for managing FFTF in a minimum surveillance and maintenance mode in June 2010, but CH2M HILL finished the plan and submitted it last month.

The work to shut down the reactor was done safely and way ahead of schedule, Wilkinson said.

El Paso, Texas \$10 million Stormwater Win



The CH2M HILL El Paso office has been providing water and wastewater engineering services to El Paso Water Utility for the past 15 years and recently won its first major stormwater project. With the average yearly rainfall in El Paso less than 8 inches, a stormwater program was a hard sell until August 2006, when the city had a wake-up call with 15 inches of rain in a day that caused major flooding and more than \$250 million in damages.

El Paso Water Utility recently took over the stormwater utility function from the City and developed a stormwater master plan that included \$650 million of improvements over the next five years. To design these improvements, they invited 22 local and national engineering firms to submit proposals. CH2M HILL's El Paso office was selected to do the design for the biggest and most complex

project, the Piedras-Durazno Stormwater Force Main. The project consists of a mile of 96-inch force main and a mile of 5-foot by 4-foot box culvert in the initial phase, and an 84 acre-foot stormwater storage pond in Phase Two. The total estimated value of this project is \$14 million, with our fees over \$1.5 million. The key for winning was coming up with an innovative solution that can potentially save EPWU more than \$2 million in construction costs.

Australia & New Zealand Region Receive Business Excellence Award

Yet another honour has been bestowed on the Australia and New Zealand Region thanks in part to the hard work and dedication of Russell Green, the regional quality manager.

It all started when a submittal by Green was sent to SAI Global as part of a gap analysis to see where CH2M HILL needed to strengthen its ISO 9001 accredited Quality Management Systems. Then, about a month later on the evening of 3 June in Brisbane at the 21st annual Australian

Business Excellence Awards ceremony, he proudly received the winner's trophy and certificate in the category for Quality Management Systems (50 - 500 employees).

The Australian Business Excellence Awards are recognized as Australia's premier business awards. They present an opportunity for a broad range of businesses and organisations from across Australia to celebrate and showcase their excellence against internationally recognised business principles. This year was the first for the Systems Excellence Awards, which recognise excellence in management systems for SAI Global-certified companies. In addition to the management systems categories for Quality (ISO 9001), awards were presented for Environment (ISO 14001), Occupational Health and Safety, Integrated Management, and Food Safety.

As stated by SAI Global, "a truly excellent organisation is able to understand and act on what its stakeholders want achieved. This year's winners (including CH2M HILL) demonstrate how they have been able to do this to stay resilient and succeed in these challenging times."

Congratulations to Green for his leadership in bringing this award to CH2MHILL and, of course, a big thank you to all ANZ employees for their hard work in delivering high-quality projects.

San Juan: Performance Brings Broader Programs

CH Caribe does it again! On June 3, the Puerto Rico Aqueduct and Sewer Authority approved CH Caribe's contracts for the next fiscal year, effective July 1, which includes more than \$30 million in services. CH Caribe is CH2M HILL's affiliate in Puerto Rico.

This is divided into three programs: Capital Improvements Program (CIP), Environmental Compliance Program, and the Non-Revenue Water Reduction Program.

Due to good performance during the last three years managing the Metro Region CIP, the scope of the CIP program for CH Caribe has expanded to now include the East, North and Metro Regions, or 75 percent of the island. Total contract value since 2006 for all program management services is approximately \$100 million.

Outstanding Performance Leads to Best Project Award for 11th Street Bridges

CH2M HILL's 11th Street Bridges project in Washington, D.C., received the Best Project Award in Transportation Planning for 2009 from the Institute of Transportation Engineers.

The Best Project Award recognizes projects that apply innovative techniques to a transportation-related issue or problem and that



benefit the profession through greater understanding of transportation issues.

The award specifically recognizes the Interchange Justification Report (IJR), prepared by CH2M HILL. The IJR officially documents the request for a change in access to the interstate system and formally presents the geometric/operational features of the proposed design solution for the project.

CH2M HILL's thorough knowledge of Federal Highway Administration (FHWA) policies, processes and unique milestone coordination plan ensured that the project was completed on an accelerated schedule and that the IJR was approved by FHWA headquarters on the first submission without further revisions. This was unusual because FHWA often goes through multiple sets of reviews and comments before a proposed project alternative, as presented in an IJR, is considered acceptable.

During the review process, FHWA staff informed the D.C. District Department of Transportation that the project deliverables for the IJR, as well as the Environmental Impact Statement (EIS), also prepared by CH2M HILL, represented some of the best work that they had ever reviewed. As a result of the quality of the analysis and solutions proposed, the overall project schedule and approval process was substantially less than any of the participating agencies anticipated.

In addition, the FHWA review team asked if the IJR and EIS documents could be shared with other states and applicants nationwide as an example of an ideal project submittal.

The 11th Street Bridges project, a fast-track project, addresses long-standing freeway connectivity issues in the heart of downtown between the Southeast/Southwest Freeway (I-395 and I-695) and the Anacostia Freeway (I-295/DC 295). In addition to completion of the IJR, CH2M HILL provided development of the corresponding EIS, analysis of multiple interchange alternatives, creation of freeway-system simulation models, and preparation of functional design plans for the preferred alternative for the reconfiguration of two system interchanges and two major bridge crossings.

Besides recognition for the IJR from the Institute of Transportation Engineers, the 11th Street Bridges project has won additional awards for environmental excellence.

Members of the CH2M HILL team include: Rob Prunty/WDC, project manager; Tim Neuman/CHI, project director; Kavita Boddu/WDC, lead engineer; Lara Hegler, Vanessa Bond, Lisa Hein, Aaron Gilliam, and Mary Pickens from the WDC office; Marlon Smoker/DCA; and Loren Bloomberg/SCO.

Singapore Sewerage: No Space to Waste

17 JUNE, 2009 | BY JESSICA ROWSON

CONSTRUCTION OF THE DEEP TUNNEL SEWER

Increasing demands on Singapore's constrained sewerage system has seen its water authority radically rethink its strategy. Jessica Rowson reports.

The treatment of wastewater in Singapore steps into the future next week with the opening of phase one of a deep tunnel sewerage system and the Changi water reclamation plant.

The project will be opened on Tuesday by Singapore's prime minister Lee Hsien Loong as the centrepiece for Singapore International Water Week.

The concept for Singapore's deep tunnel sewerage system was first conceived in the late 1990s. At that time, Singapore had in place a comprehensive wastewater system, comprising over 3,000km of sewers and pumping mains, 100 pumping stations and six water reclamation plants serving the tiny 704km² island.

A BOLD AND RADICAL APPROACH

The demands on the system increased in line with population and industrial growth, but the option to continue expanding the treatment capacity of the plants and adding more pumping stations was unsustainable in land-scarce Singapore.

Confronted with these challenges, Singapore's Public Utilities Board (PUB), embarked on a bold and radical approach with the plan to build an entirely new wastewater infrastructure that would take up less space and progressively phase out the existing system.

"One of the drivers was to reduce land take. Singapore has only around 700km² of land."

Yong Wei Hin, Singapore's Public Utilities Board assistant director

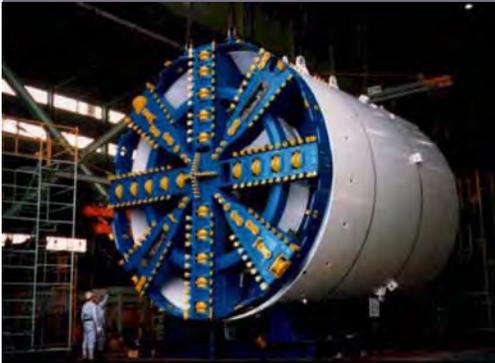
A £1.6bn deep tunnel sewerage system is PUB's solution to meet Singapore's wastewater needs for the next 100 years.

"One of the drivers was to reduce land take," says PUB assistant director Yong Wei Hin. "Singapore has only around 700km² of land."

Wastewater is collected in sewers and conveyed to the 48km long deep tunnel sewer which runs 20m to 55m below ground. The deep tunnel sewer takes the water to the centralised Changi Water Reclamation Plant for treatment. The new system depends on gravity – it is graded towards one end so there is no need for intermediate pumping.



Construction of the deep pumping station



A tunnel boring machine (TBM)



The completed tunnel



The completed tunnel



The deep tunnels



A tunnel shaft



Construction of the deep tunnel sewer



Pumping station construction

“The new system doesn’t take up much space on top,” says Wei Hin. “It goes deep underground. Also the new plant takes up less space.”

PUMPING STATION CONSTRUCTION

Minimising the Impact

Eight earth pressure balance tunnel boring machines (TBMs) were used concurrently to drive the 48km long tunnel, which varied between 3.3m and 6m in diameter.

The depth of the tunnel varies between 20m and 55m. In addition, TBMs and pipe jacking were used to create 60km of link sewers between 300mm to 3m in diameter between 10m to 55m below ground.

As the TBMs advanced, the team erected reinforced concrete pre-cast segments, before sealing and bolting them together in rings to provide primary ground support.

“The new system doesn’t take up much space on top. It goes deep underground. Also the new plant takes up less space.”

Yong Wei Hin, Singapore’s Public Utilities Board assistant director

The route of the tunnels was specifically selected to minimise the impact on existing structures.

“We aligned the tunnel along the major expressway and not beneath buildings,” says PUB assistant director Yong Wei Hin.

For corrosion protection, concrete cast insitu with 225mm thick lining and 2.5mm thick high density polyethelene (HDPE) membrane were placed inside the bored tunnel.

This project has involved 49 main contractors and consultants, with over 300 subcontractors and suppliers. A joint venture of consultants CH2M HILL and Parsons Brinckerhoff carried out a feasibility study of the deep tunnel sewerage system and designed the 48km long tunnels.

An Efficient New Source

The Changi Water Reclamation Plant is efficient in its land use. The plant has doublestacked treatment tanks and a six-storey building with three storeys of basement that houses the sludge handling facilities.

At 32ha, it has taken up only a third of the conventionally designed water reclamation plant’s land area, according to PUB.

The treated wastewater is channelled to a processing facility called Changi Newater Factory on the rooftop of the reclamation plant.

Here it is further purified through advanced membrane technologies. The processed water can be consumed by humans and is used in



The completed pumping station



Thickening centrifuges



The Changi water reclamation plant at sunset



The Changi water reclamation plant control room

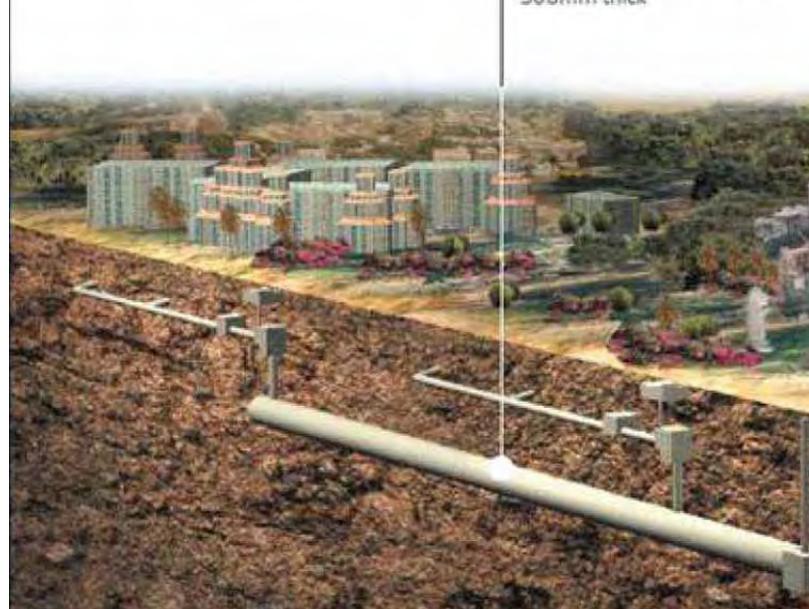
industry where high purity water is required. "It's another source of water for us," says Wei Hin.

Besides being used as feedstock for the new Changi Newater Factory, treated wastewater the new reclamation plant is used for purposes such as tank flushing and for cooling systems in machinery and buildings.

SINGAPORE'S £1.6BN DEEP SEWER SYSTEM

Deep Tunnels

The 48km of deep tunnels vary in diameter from 3.3m to 6m and are up to 500mm thick



Tunnel alignment

To avoid buildings, the tunnels were aligned to follow major highways. To avoid metro lines they are up to 50m below ground



Changi water reclamation plant

Pumping station

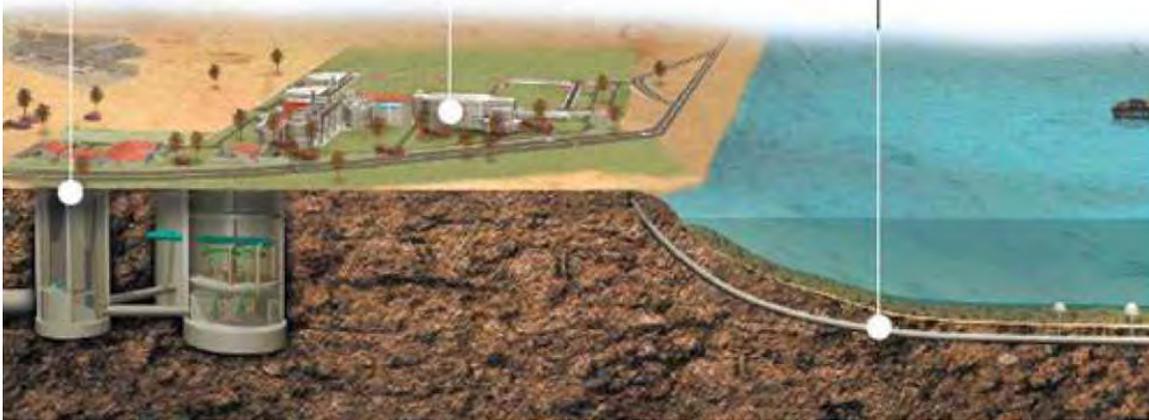
The pumping station consists of one 68.5m deep, 30m diameter coarse screen shaft and two 72.5m deep, 37m diameter pump shafts

Changi water reclamation plant

The plant is designed to treat 800,000m³ of water/day. Its capacity can be tripled to handle 2.4Mm³/day

Sea outfall

The sea outfall is 4.9km long and consists of three 3m diameter pipes, laid in a dredged trench and covered with rock armour



BASEMENT 1 (EL 90.00)
DISTRIBUTION LEVEL

BASEMENT 2 (EL 82.00)
DISCHARGE LEVEL

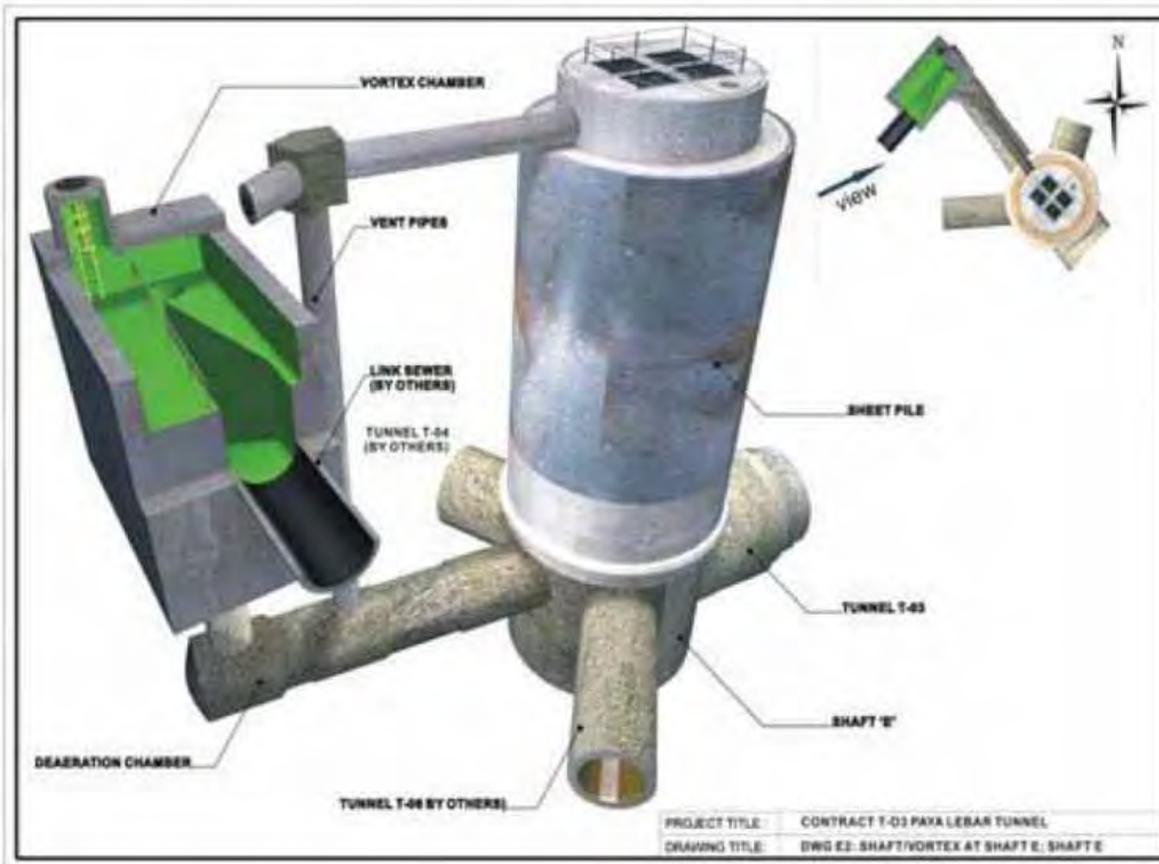
BASEMENT 3 (EL 65.00)
MOTOR LEVEL

BASEMENT 4 (EL 52.00)
PUMP LEVEL

BASEMENT 5 (EL 44.00)
SUCTION CONDUIT LEVEL



A shaft and vortex



A pump shaft

Advances In the Expansion of the Panama Canal

THIS ARTICLE IS FROM [LATIN AMERICA NEWS](#), YOUR SOURCE OF REGIONAL INFORMATION PROVIDED BY EMPLOYEES FROM MEXICO TO ARGENTINA. USING SELECTION BUTTONS ON THE FRONT PAGE, THE NEWSLETTER IS AVAILABLE IN ESPAÑOL, PORTUGUÊS, AND ENGLISH.

Currently being considered the biggest engineering project under development in Latin America, the Program of Expansion of the Panama Canal just celebrated its first 20 months under execution last May.

Out of the main nine components of the project, five are under execution, two under bidding process, and two in design stage. The projects under execution include the first three –out of four– contracts for dry excavation of the Pacific Access Channel which will link the third set of locks in the Pacific with the Corte Culebra, the narrowest point of the Canal.

In order to build this channel, along which the pospanamax ships will sail, about 47 million cubic meters of material will be removed.

The other two projects under execution correspond to the dredging works which are performed simultaneously in the Canal's Pacific entrance as well as in Gatún Lake and in Corte Culebra.

This bidding for the most important contract of the expansion, for the design and construction of the third set of locks reached a very important phase when three of the four pre-qualified consortia submitted proposals last 3rd March.

The technical aspects of these proposals were immediately referred to the Junta Técnica de Evaluación de la Autoridad del Canal de Panamá (ACP) (Technical Assessment Board of the Panama Canal Authority), made up of 15 professionals of the Canal Authority. These professionals will be advised during the whole process by international experts, including CH2M HILL staff.

Once the technical assessment is completed (early summer), the ACP will then arrange a public meeting so as to inform about the points scored by each consortium. In that meeting, the envelopes bearing the price tenders will be opened. In the meantime, such envelopes are kept in the national bank's vault. This is a call for bids of best value not negotiable, in which the technical aspects account for 55% of the score and the financial aspect, the remaining 45%. The project will be awarded to the proposal with the best combined value.

CH2M HILL joined the Expansion Program on 15th August, 2007, when it was awarded the contract for Program Administration services by the ACP.

At the beginning of the project, the American company supported the ACP in the development of the reference terms of the pospanamax locks contract, in the review of the organizational structure of the department that will be in charge of the execution of the Expansion Program and in the development of a Program Administration Plan.

At the present, CH2M HILL has a team of 21 professionals working with the Canal Authority performing amendments to the list of charges in the contract for the third set of locks, reviews of cost estimates for the locks, as well as participating in individual meetings with the consortia.

Before the end of 2009, the ACP expects to award two major contracts, including the dredging projects of the Atlantic entrance, whose list of charges was published last 27th February. This project entails the dredging of 15 million cubic meters of material and the excavation of another 800,000 cubic meters. The deadline for proposal to be submitted is 15th July, 2009.

The fourth and last contract for dry excavation of the Pacific Access Channel is expected to be awarded; the list of charges of such contract will be published in June 2009.

The contract includes the excavations of the new channel up to a level of 9.14 meters above sea level and the construction of the dam 1E de Borinquen, the biggest of four dams which will confine the waters in the access channel and which will separate it from the Miraflores Lake –located between the current locks of Pedro Miguel and Miraflores.

Between the two projects it is expected to excavate, remove and dispose of 25 million cubic meters of material. After these two projects have been awarded by the end of 2009, the Expansion Program will have 97% of its contracts under execution.

It's 5 More Years for One of Our Texas Teams

The city council in Temple, Texas, voted unanimously in late May to approve a 5-year contract renewal with CH2M HILL OMI for O&M services – a vote that came 4 months early – extending our partnership to 2014.

“The early non-compete renewal for team Temple is another example of great leadership and continued hard work,” says CH2M HILL OMI Regional Business Manager Oswaldo Garza. “The strategy behind our success was building a strong client relationship and proving ourselves to a public works director who was against contract operations. Project Manager Chris Parker, along with the entire Temple team, gained the director’s support and transformed his thinking only to hear him say that any other company would have to outdo what we do best, and that’s ‘great work.’”

“Our employees in Temple do an outstanding job,” says CH2M HILL OMI Director of Regional Operations Kirby Chaney. “Chris is a leader in many areas, especially safety.”

In fact, Temple employees recently earned five safety awards from the National Safety Council: the Perfect Record Award, the Certificate of Merit Award, the Safety Leadership Award, the Occupational Excellence Achievement Award, and the company’s first-ever Fleet Perfect Record Award for no vehicle accidents. In the history of the project, the Temple team has never had a lost-time injury accident. Employee longevity has contributed to the safety accomplishments of the Temple team.

“Our success is due to the values we took to heart early on. Employees Carrie Weir, John Petru and I have been here since the beginning, and we instill those values with other staff members who have come and gone through the years,” says Chris.

Temple, located in central Texas, began its partnership with CH2M HILL OMI in 1994. The city’s wastewater facility serves nearly 55,000 citizens. In addition to operating and maintaining the wastewater facility, a team of six associates operates 28 lift stations and administers the industrial pretreatment program.



*The Temple team:
Front row, from left to right:
Project Manager-Chris Parker,
Industrial Pretreatment Coordinator-
Carrie Weir, Operator-John Petru.*

*Back row, from left to right:
Utility Worker-Patrick O’Brien,
Mechanic-Rodney Whitworth,
Operator in Training-Michael Lehnick*

Enterprise Teamwork Supports Green Energy Win In Milwaukee

The Milwaukee Metropolitan Sewerage District has selected CH2M HILL to lead the design of its Gas Turbines Replacement Project, which will replace two 38-year-old natural gas turbines at the Jones Island Water Reclamation Facility with five 4.6-MW turbine systems capable of using landfill gas or natural gas.

This green energy project will provide the District and its customers significant benefits--including up to \$145 million in energy cost savings over the next 20 years, as well as a 50 percent reduction in the plant's annual greenhouse gas emissions. This project follows a related CH2M HILL effort for MMSD: a greenhouse gas inventory, which defined the baseline against which MMSD is measuring greenhouse gas reductions that will result from projects such as the turbine replacement.

The turbine replacement project entails much more than a straightforward power generation facility design. It includes complexities related to waste heat utilization and critical interfaces with solids drying systems. Waste heat from the combustion will be used to dry wastewater sludge to create Milorganite, a fertilizer product. Addressing these complexities required teamwork between CH2M HILL's Water and Power Business Groups--a collaboration that will continue throughout project delivery. The estimated constructed value of the project is \$43 million.

Air National Guard Honors EMS Team With "Strategic Business Partner" Award

A job well done! The onsite team supporting the Air National Guard's GeoBase Program was recognized as a "Strategic Business Partner" during the Commander's Call on May 20, 2009.

Retired Colonel Albro presented the team with the award for their excellence in service, dedication, and business practices -- a true EMS model of Global Delivery Center of Excellence (GDCOE). This award bodes well for the many years of commitment the onsite team has given toward the mission and vision of the Air National Guard, and is key to the expansion of the program.

To date there are fifteen CH2M HILL employees operating the Air National Guard's Geospatial Integration Office, led by Lt. Colonel Pape, located at Andrews Air Force Base, Maryland and various regions throughout the United States. This is significant since the program's inception dating back to 2002.



EMS GeoBase Program team members include:

Back Row: Mark Alexander, Brian Cullis, Chris Stanton, Sergio Henricy, Steve Kestler, Mark Parthum, John Jordan

Center Row: Jim Bauer, Jon Patno, Justin Wolff, Scott Walker, Greg Turner, Joe Kochendarfer, Mike Nunke

Front Row: Melanie Benda, Ritu Sharma, Susan Kil

When asked what this award means for CH2M HILL and the Air National Guard, Greg Turner, Program Manager, said, "This is huge and could not have been achieved without the team! Our goal is to always provide services utilizing the best resources possible so that the Air National Guard completes its mission."